

IN THE CLAIMS

Please amend the claims as follows:

Claims 1 – 12: (Cancelled).

Claim 13 (New): A method of preparing a double glazing unit, comprising:
positioning a first glass sheet and a second glass sheet into a first stage movement apparatus;

maintaining a fixed distance gap between the first glass sheet and the second glass sheet in the first stage with a holder using suction force;

moving the first and second glass sheets to a second stage movement apparatus by using a first driven guide located in the first stage, a second driven guide located in the second stage, and a suction chuck located on an actuator driven sled; and

maintaining with suction the fixed distance gap while the first glass sheet and second glass sheet are moved;

wherein the step of moving includes pulling the first and second glass sheets to the second stage by moving the suction chuck toward the first stage, affixing the suction chuck to the first and second glass plates via suction, and pulling the suction chuck into the second stage.

Claim 14 (New): The method of Claim 13, wherein the first holder comprises:
a first pair of suction boxes configured to attract by suction force a first face of the first glass sheet; and
a second pair of suction boxes configured to attract by suction force a first face of the second glass sheet and positioned substantially symmetrically to the first pair of suction

boxes about a plane parallel to the first and second glass sheets and located between the first and second glass sheets.

Claim 15 (New): The method of Claim 14, wherein the first pair of suction boxes comprises:

rollers attached to the first pair of suction boxes such that part of the rollers extends beyond the faces of the first pair of suction boxes facing the first glass sheet; and

rollers attached to the second pair of suction box such that part of the rollers extends beyond the faces of the second pair of suction boxes facing the second glass sheet.

Claim 16 (New): The method of Claim 14, wherein the first holder further comprises:

a first single suction box positioned on the half of the first stage closest to the second stage; and

a second single suction box positioned symmetrically to the first single suction box about the parallel plane.

Claim 17 (New): The method of Claim 16, wherein the first single suction box and the second suction box have a length greater than a width and are positioned such that a length dimension is substantially perpendicular to a direction of movement of the first glass sheet and second glass sheet.

Claims 18 (New): The method of Claim 14, wherein

the first pair of suction boxes comprises a first paired suction box and a second paired suction box located substantially above the first paired suction box; and

the second pair of suction boxes comprises a third paired suction box and fourth paired suction box located substantially above the third paired suction box.

Claim 19 (New): The method of Claim 15, wherein the second holder comprises:
a first single suction box positioned on the half of the second stage closest to the first stage; and

a second single suction box positioned substantially symmetrically to the first single suction box about the parallel plane.

Claim 20 (New): The method of Claim 19, wherein the first single suction box in the second stage and the second single suction box in the second stage have a length greater than width and are positioned such that the length dimension is substantially perpendicular to a direction of movement of the first glass sheet and second glass sheet.

Claim 21 (New): The method of Claim 13, further comprising:
applying resin to a first vertical edge of at least one of the first glass sheet and second glass sheet inside the fixed distance gap;

applying resin to a first horizontal edge of at least one of the first glass sheet and the second glass sheet inside the fixed distance gap while the first glass sheet and second glass sheet are moving from the first stage to the second stage;

applying resin to a second vertical edge of at least one of the first glass sheet and second glass sheet inside the fixed distance gap; and

applying resin to a second horizontal edge of at least one of the first glass sheet and second glass sheet inside the fixed distance gap while the first glass sheet and second glass sheet are moving from the second stage to the first stage.

Claim 22 (New): The method of Claim 13, further comprising:
using suction force to maintain a second fixed distance in the gap between the first glass sheet and the second glass sheet with a second holder when the first glass sheet and second glass sheet are in the second stage movement apparatus.

Claim 23 (New): The method of Claim 22, wherein
said second fixed distance is substantially equal to said fixed distance.

Claim 24 (New): The method of Claim 13, further comprising:
using the first guide, second guide, and suction chuck to move the first glass sheet and second glass sheet from the second stage movement apparatus to the first stage movement apparatus.

Claim 25 (New): The method of Claim 13, wherein the first holder comprises:
a first pair of suction boxes configured to attract by suction force a first face of the first glass sheet; and
a plurality of rollers configured to support the second sheet of glass.

Claim 26 (New): The method of Claim 25, wherein the plurality of rollers support the second glass sheet at an angle of approximately 5 to 10 degrees from vertical.

Claim 27 (New): The method of Claim 26, wherein the first holder further comprises:
rollers attached to each of the first pair of suction boxes such that part of the rollers extends beyond the faces of the first pair of suction boxes facing the first sheet of glass.

Claim 28 (New): The method of Claim 27, wherein the first holder further comprises:
a first single suction box positioned on the half of the first stage closest to the second stage; and
a second single suction box positioned symmetrically to the first single suction box about the parallel plane.

Claim 29 (New): The method of Claim 28, wherein the first single suction box and the second single suction box have a length greater than a width and are positioned such that a length dimension is substantially perpendicular to a direction of movement of the first glass sheet and second glass sheet.

Claims 30 (New): The method of Claim 25, wherein the first pair of suction boxes comprises:

a first paired suction box; and
a second paired suction box located substantially above the first paired suction box.

Claim 31 (New): The method of Claim 27, wherein the second holder comprises:
a first suction box positioned on the half of the second stage closest to the first stage;
and
a second suction box positioned substantially symmetrically to the first single suction box about the parallel plane.

Claim 32 (New): The method of Claim 31, wherein the first single suction box in the second stage and the second single suction box in the second stage have a length greater than

width and are positioned such that a length dimension is substantially perpendicular to a direction of movement of the first glass sheet and second glass sheet.

Claim 33 (New): A system to prepare a double glazing unit, comprised of:

a first stage movement apparatus configured to move a first glass sheet and a second glass sheet substantially horizontally; and

a second stage movement apparatus having a holder configured to move the first glass sheet and the second glass sheet substantially horizontally;

wherein the first stage comprises:

a first holder configured to maintain via suction force a gap of substantially fixed distance between the first glass sheet and the second glass sheet and to maintain the first glass sheet substantially parallel to the second glass sheet;

a first driven guide; and

wherein the second stage movement apparatus comprises:

a second holder;

a second driven guide;

a suction chuck located on an actuator driven sled and configured to attach by suction force to the first and second glass sheets and said sled is configured to extend the suction chuck toward the first stage movement apparatus and retract the suction chuck toward the second stage movement apparatus.

Claim 34 (New): An apparatus configured to move a pair of glass sheets, comprising:

a suction chuck configured to adhere by suction force a first face of a first glass sheet and a first face of a second glass sheet; and

an actuator driven sled configured to move the suction chuck and first and second glass sheets in a first direction and a second direction.

Claim 35 (New): A system for preparing a double glazing unit, comprised of:

a means for positioning a first glass sheet and a second glass sheet into a first stage movement apparatus;

a means for maintaining a fixed distance gap between the first glass sheet and the second glass sheet in the first stage with a holder using suction force;

a means for moving the first and second glass sheets to a second stage movement apparatus including using a first driven guide located in the first stage, a second driven guide located in the second stage, and a suction chuck located on an actuator driven sled; and

a means for maintaining with suction the fixed distance gap while the first glass sheet and second glass sheet are moved;

wherein the a means for moving includes a means for pulling the first and second glass sheets to the second stage, a means for affixing the suction chuck to the first and second glass plates via suction, and a means for pulling the suction chuck into the second stage.